KIPS ENTRY TESTS PREPARATION

BIOLOGY NMDCAT EARLIER PREP

PMC UNIT WISE TEST Unit-3

TOPICS:

- ✓ **Bioenergetics**
- ✓ **Biodiversity/Variety of Life**

Q.1 **The source of oxygen during photosynthesis is:**

A. CO_2 B.G3P
C. H_2O D.H_2S

Q.2 **All are products of light reactions except:**

A. ATP B.$C_6H_{12}O_6$
C. O_2 D. NADPH

Q.3 **Diversity among photosystems is due to:**

A. Carotenes B. Chlorophyll 'b'
C. Chlorophyll 'a' D. Xanthophylls

Q.4 **Ultimate source of energy for the formation of glucose through Calvin cycle is:**

A. NADH B. $NADPH_2$
C. ATP D. Solar energy

Q.5 **All of the following are involved in cyclic electron flow during light reaction except:**

A. Plastocyanin B. Primary electron acceptor
C. Plastoquinone D. Ferredoxin

Q.6 **How many ATPs are required for the operation of one Calvin cycle?**

A.3 B.6
C. 9 D.18

Q.7 **Basic structure of all chlorophylls comprises:**

A. Cytochromes B. Porphyrins
C. Flavoproteins D. Plastocyanins

Q.8 **At the end of the respiratory chain, electrons, protons and oxygen combine to form:**

A. ATP B. Water
C. CO_2 D. Pyruvate

Q.9 **The fixation of CO_2 in Calvin cycle requires which of the following acceptor molecule?**

A. Aldo-pentose B. Keto-pentose
C. Aldo-triose D. Keto-triose

Q.10 **Which is the correct order of energy transfer from accessory pigments to main photosynthetic pigment?**

A. Carotenoids → chlorophyll a → chlorophyll b
B. Chlorophyll a → carotenoids → chlorophyll b
C. Carotenoids → chlorophyll b → chlorophyll a
D. Chlorophyll b → carotenoids → chlorophyll a

Q.11 **ATP consumption and production are associated with:**

A. Glycolysis B. Krebs cycle
C. Electron transport chain D. Pyruvic acid oxidation

Q.12 **Correct sequence of utilization of biomolecules for the production of energy in our body is:**

A. Carbohydrates → Lipids → Proteins B. Carbohydrates → Proteins → Lipids
C. Lipids → Proteins → Carbohydrates D. Proteins → Lipids → Carbohydrates

Q.13 **In oxidative phosphorylation, cytochrome a is oxidized by:**

A. Co enzyme Q
B. Cytochrome 'b'
C. Cytochrome 'a_3'
D. Cytochrome 'c'

Q.14 Total number of CO_2 molecules released by oxidation of glucose through Krebs cycle:

A.2
B.3
C.4
D. 6

Q.15 Which of the following correctly represents the end product (net) of glycolysis?

	ATP	NADH	H_2O
A.	4	4	4
B.	2	2	2
C.	4	2	4
D.	2	4	2

Q.16 All of the following are associated with light reaction except:
A. Breakdown of water
B. Fixation of CO_2
C. Excitation of electrons
D. Formation of NADPH

Q.17 A process that uses membranes to couple redox reactions to ATP synthesis is called:
A. Osmosis
B. Active transport
C. Chemiosmosis
D. Krebs cycle

Q.18 It structurally resembles with haeme portion of haemoglobin:
A. Porphyrin
B. Phytol
C. Pyrrole
D. Phytochrome

Q.19 Most common type of cellular respiration in our muscles is:
A. Alcoholic fermentation
B. Aerobic respiration
C. Lactic acid fermentation
D. Anaerobic respiration

Q.20 CO_2 in atmosphere remains relatively constant because:
A. It is released during respiration and is used up in photosynthesis
B. It is converted into carbohydrates during photosynthesis
C. It is converted into $CaCO_3$
D. Bacteria use extra CO_2 in atmosphere

Q.21 Photosystems occur in:
A. Stroma
B. Chloroplast envelope
C. Grana
D. Thylakoid interior space

Q.22 During Aerobic respiration, protons are diffused from:
A. Matrix to inter-membranous space
B. Inter-membranous space to matrix
C. Stroma to thylakoid lumen
D. Thylakoid lumen to stroma

Q.23 Dihydroxyacetone phosphate is an isomer of:
A. RuP
B. PGA
C.G3P
D. PEP

Q.24 Most efficient wavelength to carry out photosynthesis is of:
A. Green colour
B. Blue colour
C. Red colour
D. Orange colour

Q.25 At 500 nm, most of the light is absorbed by:
A. Chlorophyll a
B. Carotenoids
C. Chlorophyll b
D. Chlorophyll c

Q.26 Which of the following is intermediate in carbohydrates and fats metabolism?
A. CO_2
B. Acetyl Co-A
C. Pyruvic acid
D.G3P

Q.27 In Krebs cycle, the H atoms removed at succinate level, are accepted by:
A.FAD
B.ADP
C. NADP
D.NAD

Q.28 Number of which of the following is same in chlorophyll a and b?
A. C and H
B. C and O
C. H and O
D. C and N

Q.29 Increased level of ATP during aerobic respiration can inhibit the functioning of:
A. Hexokinase
B. Pyruvate decarboxylase
C. Citrate synthase
D. Phosphofructokinase

Q.30 Both respiration and photosynthesis require:
A. Organic fuel
B. Sunlight
C. Cytochromes
D.C-C energy

Q.31 Most of Krebs cycle's enzymes are located in/at
A. Mitochondrial matrix
B. Cristae
C. Outer mitochondrial membrane
D. Inter-membranous space

Q.32 Yeast cell respires through:
A. Aerobically only
B. Both aerobically and anaerobically
C. Anaerobically only
D. In a unique way

Q.33 Calvin cycle is commonly known as:
A. C_3 pathway
B. C 4 pathway
C. Glucose pathway
D. Aerobic cycle

Q.34 Stage till which aerobic respiration and fermentation are same:
A.DAP formation
B.3PG formation
C. Pyruvate formation
D. Acetyl CoA formation

Q.35 Which one of these is a '5C' compound?
A. Succinate
B.α-ketoglutarate
C. Citrate
D. Malate

Q.36 Which of the following is an acellular organism?
A. Virus
B. Porifera
C. Cnidarians
D. Bacteria

Q.37 Which of the following statement about viruses is correct?
A. They infect all forms of life
B. Viruses contain both DNA and RNA
C. Nucleic acid core is known as capsid
D. They possess endo-membranous system

Q.38 It is found in bacteriophages:
A. Reverse transcriptase
B. Lysosome
C. Peptidase
D. Lysozyme

Q.39 A structural component essential for all viruses is:
A. Envelope
B. Spikes
C. Capsid
D. DNA

Q.40 Who discovered that the agent which caused tobacco mosaic disease was filterable?
A. Louis Pasteur
B. Charles Chamberland
C. Ivanowski
D. Stanley

Q.41 A bacteriophage can be recognized by its:
A. Tadpole shape
B. Hexagonal shape
C. Rhomboidal shape
D. Spherical shape

Q.42 Sometimes when a virus attacks a bacterium, neither the virus multiplies, nor the bacterium dies. This phenomenon is called as:
A. Adsorption
B. Lysogeny
C. Assimilation
D. Lysis

Q.43 Vascular lesions in epithelial layer of ectodermal tissue and raised fluid filled vesicles are formed in_____ and _____ respectively:
A. Measles and Small pox
B. Mumps and Measles
C. Herpes simplex and Small pox
D. Rabies and Herpes simplex

Q.44 It has been totally eradicated from world through vaccination:
A. AIDS
B. Small pox
C. Poliomyelitis
D. Measles

Q.45 Human Immune Deficiency Virus is:
A. dsRNA enveloped virus
B. dsRNA non-enveloped virus
C. ssRNA enveloped virus
D. ssRNA non-enveloped virus

Q.46 Retroviral DNA incorporated into host DNA is called:
A. Prophage
B. Prions
C. Provirus
D. Virion

Q.47 HIV decreases natural immunity of the body by:
A. Destroying immunoglobulins
B. Destroying leukocytes
C. Attacking plasma clone cells
D. Attacking T lymphocytes

Q.48 Viroid causes:
A. Hepatitis 'A'
B. Hepatitis 'B'
C. Hepatitis 'D'
D. Hepatitis 'E'

Q.49 Lysozyme is used to dissolve:
A. Viral capsid
B. Bacterial cell membrane
C. Bacterial cell wall
D. Bacterial envelope

Q.50 Lower limb paralysis may be caused during the course of:
A. Small pox
B. Mumps
C. Polio
D. HIV

Biology Key

1- C
2- B
3- C
4- D
5- C
6- C
7- B
8- B
9- B
10- C
11- A
12- A
13- C
14- C
15- B
16- B
17- C
18- A
19- B
20- A
21- C
22- B
23 C
24- C
25- B
27- A
28- D
29- D
30- C
31- A
32- B
33- A
34- C
35- B
36- A
37- A
38- D
40- C
41- A
42- B
43- C
44- B
45- C
46- C
47- D
48- C
49- C
50- C